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IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A method for accessing resources within a data processing network, comprising the steps of:

computing a set of hash values representing a set of resources stored in association with at least one data processing system within the network;

storing the computed set of hash values;

in response to a requirement for access to a first resource which is accessible via a bandwidth-sensitive connection, retrieving a hash value derived from the required first resource;

comparing the retrieved hash value with the stored set of hash values to identify a match between the retrieved hash value and any of the stored set of hash values;

in response to identifying a match for the retrieved hash value, initiating retrieval of the required first resource from said at least one data processing system; and~~, if no match is identified for the retrieved hash value, retrieving the required first resource~~ via said bandwidth-sensitive connection, including initiating retrieval of the required first resource via said bandwidth-sensitive connection in parallel with initiating retrieval of the required first resource from said at least one data processing system.

2. (original) The method of claim 1, wherein the step of retrieving the hash value derived from the required first resource comprises:

sending a resource access request to a server computer via the bandwidth-sensitive connection; and

receiving the hash value from the server computer via the bandwidth-sensitive connection.

3-4. (canceled)

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5. (currently amended) The method of claim 3, wherein the required first resource has bits arranged in a sequence, and the step of initiating retrieval of the required first resource from said at least one data processing system comprises:

~~initiating retrieval of resource size information and~~ initiating retrieval of the bit sequence of said required first resource in a reverse order relative to the retrieval of said required first resource via the bandwidth-sensitive connection; and wherein the method includes:

combining portions of the bit sequence of said required first resource received via the bandwidth-sensitive connection and received from said at least one data processing system to build the bit sequence of said required first resource.

6. (currently amended) A method for accessing resources within a data processing network, comprising the steps of:

computing a set of hash values representing a set of resources distributed across a plurality of data processing systems within a local area network (LAN), the resources within said set of resources being accessible from respective ones of the plurality of data processing systems;

storing the set of hash values together with an identification of a respective data processing system of said plurality of data processing systems storing the resource corresponding to each of the set of hash values;

in response to a requirement for access to a resource which is stored at a remote data processing system, retrieving from the remote data processing system a hash value derived from the required resource;

comparing the retrieved hash value with the stored set of hash values to identify a match between the retrieved hash value and any of the stored set of hash values;

in response to identifying a match for the retrieved hash value, initiating retrieval of the required resource from a respective one of the plurality of data processing systems at which the resource corresponding to the matched hash value is stored; and~~, if no match is identified for the retrieved hash value, retrieving the required resource~~ from said remote data processing system, including initiating retrieval of the required resource from

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the remote data processing system in parallel with initiating retrieval of the required resource from the one of the plurality of data processing systems at which the resource corresponding to the matched hash value is stored.

7. (original) The method of claim 6, wherein the set of hash values and identification of a respective data processing system are stored with information regarding the location within storage of the respective data processing system of the resource corresponding to the hash value.

8-18. (canceled)

19-29. (withdrawn)

30-32. (canceled)

33. (new) The method of claim 5, including the steps of:

retrieving information indicating size of the first required; and

completing the combining responsive to a total number of bits retrieved reaching the indicated size of the first required resource.

34. (new) The method of claim 6, wherein the required first resource has bits arranged in a sequence, and the step of initiating retrieval of the required first resource from said at least one data processing system comprises:

initiating retrieval of the bit sequence of said required first resource in a reverse order relative to the retrieval of said required first resource via the bandwidth-sensitive connection; and wherein the method includes:

combining portions of the bit sequence of said required first resource received via the bandwidth-sensitive connection and received from said at least one data processing system to build the bit sequence of said required first resource.

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35. (new) The method of claim 34, including the steps of:

retrieving information indicating size of the first required resource for use in controlling the combining; and

completing the combining responsive to a total number of bits retrieved reaching the indicated size of the first required resource.

36. A computer program product, stored on a tangible, computer readable medium, for accessing resources within a data processing network, the data processing network including a local area network ("LAN") and a remote network outside the LAN, said computer program product having instructions for execution by a computer, wherein the instructions when executed by the computer, cause the computer to implement a method comprising the steps of:

storing a set of hash values representing a set of resources, the resources being stored within the LAN;

in response to a requirement for access to a first resource accessible via the remote network, retrieving a hash value derived from the required first resource;

comparing the retrieved hash value with the stored set of hash values to identify a match between the retrieved hash value and any of the stored set of hash values;

in response to identifying such a match, initiating retrieval of the required first resource from said LAN and from said remote network, including initiating retrieval of the required first resource from said LAN in parallel with initiating retrieval of the required first resource from said remote network.

37. The computer program product of claim 36, wherein the step of retrieving the hash value derived from the required first resource comprises:

sending a resource access request to a server computer at the remote network; and

receiving the hash value from the server computer.

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38. The computer program product of claim 36, wherein the required first resource has bits arranged in a sequence, and the step of initiating retrieval of the required first resource comprises:

initiating retrieval of the bit sequence of said required first resource from the LAN in a reverse order relative to the retrieval of said required first resource from the remote network; and wherein the instructions when executed by the computer, cause the computer to implement the method such that the method further comprises the steps of:

combining a portion of the bit sequence of said required first resource received from the LAN and a portion of the bit sequence of said required first resource received from the remote network to build a complete bit sequence of said required first resource.

39. The computer program product of claim 38, wherein the instructions when executed by the computer, cause the computer to implement the method such that the method further comprises the steps of:

retrieving information indicating size of the first required resource; and

completing the combining responsive to a total number of bits retrieved reaching the indicated size of the first required resource.

40. A computer system comprising:

a processor; and

a storage device connected to the processor, wherein the storage device has stored thereon a program for accessing resources within a data processing network, the data processing network including a local area network ("LAN") and a remote network outside the LAN, and wherein the processor is operative with the program to execute the program for performing the steps of:

storing a set of hash values representing a set of resources, the resources being stored within the LAN;

in response to a requirement for access to a first resource accessible via the remote network, retrieving a hash value derived from the required first resource;

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comparing the retrieved hash value with the stored set of hash values to identify a match between the retrieved hash value and any of the stored set of hash values;

in response to identifying such a match, initiating retrieval of the required first resource from said LAN and from said remote network, including initiating retrieval of the required first resource from said LAN in parallel with initiating retrieval of the required first resource from said remote network.

41. The computer system of claim 40, wherein the step of retrieving the hash value derived from the required first resource comprises:

sending a resource access request to a server computer at the remote network; and

receiving the hash value from the server computer.

42. The computer system of claim 40, wherein the required first resource has bits arranged in a sequence, and the step of initiating retrieval of the required first resource comprises:

initiating retrieval of the bit sequence of said required first resource from the LAN in a reverse order relative to the retrieval of said required first resource from the remote network; and wherein the processor is operative with the program to execute the program for further performing the steps of:

combining a portion of the bit sequence of said required first resource received from the LAN and a portion of the bit sequence of said required first resource received from the remote network to build a complete bit sequence of said required first resource.

43. The computer system of claim 42, wherein the processor is operative with the program to execute the program for further performing the steps of:

retrieving information indicating size of the first required resource; and

completing the combining responsive to a total number of bits retrieved reaching the indicated size of the first required resource.

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